COVAD
COMMUNICATIONS COMPANY

September 25, 1998

VIA HAND DELIVERY

Magalie Roman Salas, Secretary
Federal Communications Commission
1919 M Street N.W., Room 222
Washington, DC 20554

Re: CC Docket No. 98-147: Attachments 1 and 2 to Comments of Covad Communications Company

Dear Ms. Salas,

Attached please find five executed copies of Attachments 1 and 2 to the Comments of Covad Communications Company in the above-referenced proceeding (Deployment of Wireline Services Offering Advanced Telecommunications Capability). Earlier today, Covad submitted its Comments (which included electronic versions of these Attachments) through the Commissions Electronic Comment Filing System. The Attachments contained herein are fully-executed by witnesses.

Sincerely yours,

Thomas M. Koutsky

Enc: Five copies of Affidavit of Thomas J. Regan (Attachment 1)
Five copies of Affidavit of John Fogarty (Attachment 2)

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Attachment 1

Affidavit of Thomas J. Regan
Covad Communications Company

Before the Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	

AFFIDAVIT OF THOMAS J. REGAN ON BEHALF OF COVAD COMMUNICATIONS COMPANY

Witness Qualifications

1. My name is Thomas J. Regan, and I am the Director of Collocation and Operations for Covad Communications Company ("Covad"), a Silicon Valley-based start-up competitive local exchange carrier. I have held this position since March 31, 1997.

2. Prior to joining Covad, I was employed at Pacific Bell for 27 years. At Pacific Bell, my most recent position was Expanded Interconnection Service Product Manager, reporting to the Executive Director. In this capacity, I managed a 300% increase in collocation requests in 1996. I was responsible for the statewide management of Pacific Bell's offering and implementation of physical collocation by Competitive Local Exchange Carriers (CLECs) of their own CLEC equipment in Pacific Bell's Central Offices.

3. I directed Pacific Bell's collocation teams involving personnel from Pacific Bell's Operations, Engineering, Real Estate and Security departments with respect to the

construction of more than 120 collocation cages in approximately 70 central offices ("CO").

4. I prepared Pacific Bell's complete market financial package for the FCC's and the California Public Utilities Commission's regulatory approvals on each new request for physical collocation in a non-tariffed CO (that is, a CO that previously had no collocators and had not been configured for physical collocation). I also led Pacific Bell's team in the preparation and costing of new cross-connect products for physical collocators, as well as related tariffs. In addition, I managed Pacific Bell's collocation and billing and account crediting process for collocating CLECs.

5. Prior to commencing my role as product manager for collocation and expanded interconnection at Pacific Bell, I was a senior engineer for Pacific Bell responsible for a variety of large-scale network engineering projects. I participated in the deployment of new switch-based products and developed new processes to facilitate the introduction of new products throughout the Bay Area. Significant projects in this position included leading the implementation of 15 major Advance Digital Technology projects; coordinating the engineering and provisioning of customer requests for large Centrex, Centrex-IS, PRI ISDN, Voice Mail, SDS 56 and other tariffed products; and coordinating Pacific Bell's engineering and operations activities to deploy major new network products, serving as the Network Technology Department's point of contact for field trials and first office applications of new switch technology.

6. In addition, I previously served as Pacific Bell's Service Manager for Bank of America's account in San Francisco between 1986 and 1990. I was responsible for ensuring Bank of America's satisfaction with all voice and data services which included

63 data networks, three data centers, two alarm centers, a merchant services center, a business service center and a money transfer center. I completed several key voice and data projects for Bank of America, including the six phase ATM, alarm consolidation, point-of-sale transfer, circuit inventory identification and rehome for north and south locations, fiber surveillance, and ADN on the California Data Network, and reduced error rates on the Bank of America voice network and converted it from analog to digital statewide, and improved its point of sale network capabilities and efficiency. Prior to 1986, I held a number of other positions at Pacific Bell, including the following: Customer Service Supervisor; Division Staff Training Facilitator; Distribution Services, Installation and Prewire Supervisor; and Distribution Services Cutover Supervisor.

7. I am currently responsible for all of Covad's collocation arrangements nationwide and supervising a substantial staff of highly qualified individuals with literally dozens of years experience with collocation and incumbent LEC operations. Over the past year, I have been responsible for obtaining physical collocation arrangements with Pacific Bell, GTE, Ameritech, Bell Atlantic and U S WEST. Covad currently has several hundred collocation requests in varying stages of being processed by incumbent LECs. I was a key Covad negotiator on the cageless physical collocation terms included in Covad's interconnection agreement with U S WEST Communications, Inc. in the State of Washington.

Covad's Physical Collocation Requirements

8. When Covad decides to enter a market, it undertakes a "blanket" physical collocation strategy, involving all offices in the relevant market. For example, in the Baltimore/Washington corridor, the geographic spread of Covad's collocation

applications range from as far south as Fredericksburg, Virginia to as far north as Westminster, Maryland. Unfortunately, Bell Atlantic is currently claiming that there is "no space" for physical collocation in many of these offices, including Frederick, Maryland, and Waldorf, Maryland.

9. The equipment Covad and, presumably, other similar CLECs focused upon DSL services, collocate in an ILEC central office does not take an inordinate amount of space or power. Covad physically collocates DSLAMs ("Digital Subscriber Line Access Multiplexers") (MCS: 14.38" x 12" x 21.25"; Wt: 74 lbs and LCS: 12.13" x 12" x 21.25"; Wt: 65lbs), and other cabling and equipment which it uses to access and interconnect with unbundled network elements such as local loops and dedicated transport and manage its services over such loops and transmission facilities. Covad's equipment is rack-mountable. Covad typically occupies two bays in a CO, and those two bays can collocate sufficient equipment in order to serve 500 – 1,000 subscribers, sufficient to meet Covad's near term needs. A bay of equipment is 23 inches wide an approximately one foot deep. Each year, technological improvements allow carriers like Covad to serve more customers with less equipment. Therefore, Covad's needs for physical collocation space in any one CO are relatively modest. By way of comparison, Covad's equipment is the size of a stereo system, while many voice-oriented CLECs have often collocated DLC (Digital Loop Carrier)-type equipment that is more typically the size of a refrigerator.

10. Since the passage of the Telecommunications Act of 1996 (the "Act"), which requires physical collocation and makes it possible for CLECs to use unbundled network elements to provide competition over wide geographic areas, new companies such as

Covad have adopted a strategy of physically collocating in dozens of ILEC central offices. ILECs are now facing unprecedented demand for physical collocation.

Current ILEC Physical Collocation Options are Inadequate

11. Today, ILECs generally require CLECs to collocate equipment in a segregated collocation room or area, even though construction of these segregated collocation rooms are very costly, time-consuming, and prevent CLECs from collocating in a number of central offices because of ostensible space considerations. Covad's agreement with U S WEST in the State of Washington is, I believe, the first time that an ILEC has agreed to provide a CLEC with the ability to physically collocate individual bays of equipment in the ILECs central office without resort to construction of a segregated collocation room or area.

12. Under cage-based collocation practices, the steps which precede the actual installation of equipment are extremely time consuming and vary with the central office at issue. Essentially, the implementation of cage-based collocation involves two fundamentally different scenarios. In central offices where there are no existing physical collocators ("Case A"), the CO does not have a pre-conditioned or configured collocation room suitable for cage-based physical collocation. In the second case ("Case B"), the CO has been surveyed and the cage-based physical collocation room has already been segregated and prepared for collocation (i.e., a separate entrance for the collocators has been built, including any new staircases, doorways, hallways, and security card access) and may be pre-built with the necessary infrastructure (iron-work and HVAC) in place. (In Case B, empty cages may or may not have been built.) In most instance, a POT-Bay

("Point of Termination") must be engineered, furnished and installed (EFI-ed) before a new collocating carrier such as Covad can provide service from the office.

13. If a CO already has physical collocation facilities for other parties (Case B), then the infrastructure such as space design and related engineering, and any required reclamation and lay out, and air conditioning are already in place. It should be a relatively simple to provide an additional cage to a CLEC and certainly should not take four months, which is what some ILECs commit to.

14. Covad's focus is on collocation in residential central offices which frequently fall into Case A—that is, the offices that do not have any pre-existing physical collocators and therefore no existing segregated physical collocation room. As a result, Covad is often asked to pay for (and wait) for construction of the entire infrastructure that cage-based collocation mandates must be in place in a segregated section of the central office. This process is expensive and time-consuming. An appropriate section of the central office must be identified and designated for such cage-based collocation, typically based on the ILEC's ability to create collocation space not only for Covad for multiple collocators. Any space reclamation, such as removal of obsolete equipment and/or relocation of other non-CO essential uses such as administrative, recreational, storage and staging functions, must be performed. HVAC (air-conditioning) and ironwork must be provided. Providing for the entire infrastructure for cage-based physical collocation is a significant, non-trivial project that requires the ILEC to expend considerable resources and time to carry out. Many times, Covad has been asked to pay for the construction of segregated rooms much larger than needed actually by Covad—in one office in the District of Columbia, Covad has been asked to construct a room the size of 2100 square

feet. The room construction charges can be extraordinary—Covad has been presented with quotes in excess of $100,000 and up to $200,000 for doing this room construction work in some central offices.

15. In many cases (such as Bell Atlantic "South", or pre-merger Bell Atlantic states), the ILEC charges the first CLEC that collocates the entire up-front infrastructure and other non-recurring charges for building this segregated room. ILECs claim that they later refund a portion of the charges to the first collocator after new collocators collocate in that CO. In this way, the first collocator faces the most severe barrier to entry, and subsequent collocators face a less severe barrier to entry. In a very real sense, these terms present a substantial barrier to entry upon the first collocator. Even if multiple collocators eventually enter, they are all placed at a disadvantage vis-à-vis the ILEC because the ILEC continues to collocate its own equipment in those very same offices on a cageless basis.

Covad's Cageless Physical Collocation Proposal

16. As described in Covad's Comments in this proceeding, cageless physical collocation is a form of physical collocation in which a requesting telecommunications carrier has the ability to place at least one bay of its own equipment used for interconnection or access to unbundled network elements within or upon already-conditioned floor space of an incumbent LEC's premises. Under this arrangement, requesting carriers may obtain single-bay increments of already-conditioned floor space in the ILEC premises, use all the features, functions and capabilities of collocated equipment, and enter the ILEC premises (subject to reasonable security terms and conditions) to install, maintain and repair such equipment. Cages or segregated rooms or

areas would not be built, unless requested by the CLEC. Reasonable security measures would be undertaken at the expense of the party desiring those security measures. In the event that insufficient already-conditioned floor space does not exist in the office (which would be rare, in my opinion), the incumbent LEC is required to condition sufficient floor space to accommodate the CLEC's request but may only charge the CLEC the pro-rata share of those conditioning charges. Therefore, if the ILEC feels necessary to condition 300 square feet to accommodate a CLEC's request for 30 square feet of floor space, it should only be permitted to charge the CLEC 10% (30/300) of those conditioning costs.

17. Fundamentally, cageless physical collocation offers CLECs true parity of opportunity to place equipment in a CO. When the ILEC installs new equipment in a CO, such as its own xDSL equipment, it simply places its equipment in any available space in the CO that has been pre-conditioned (i.e., has the necessary infrastructure) and that can accommodate the equipment. Such vacancies typically exist in scattered parts of the CO within a large, previously conditioned section of the CO. Cageless physical collocation is far more space efficient, less costly for all, less time-consuming for all and will serve the public interest in a vastly superior manner.

18. Cageless physical collocation is technically feasible in all aspects, including operational, technical, security and administrative aspects. Indeed, outside of the ILEC central office environment, forms of cage-less physical collocation are common in the industry, in particular between and among CLECs. For example, in Covad's regional data center in San Jose, California, MFS, TCG and Brooks Fiber collocate fiber transmission equipment on a cage-less basis. In addition, since divestiture, AT&T has

shared common floors with the RBOCs in COs, where the demarcation between AT&T floor space and the RBOC's floor space is a painted line on the floor of the CO. Thus, since the RBOCs can share CO floor space as a part of a condominium arrangement with AT&T, they should do the same for a CLEC like Covad that requests a cageless arrangement. Intermedia, a CLEC, provides cageless physical collocation in its offices in Florida and New York, and manages security by way of security escorts. In the competitive environment, carriers go out of their way to accommodate physical collocation and have every incentive to develop innovative solutions. The flat refusal of many ILECs to provide alternative arrangements like cageless clearly reveals that they do not now operate in a competitive market.

19. Indeed, based on my experience with Pacific Bell and my interaction with other ILECs, ILECs have opposed cageless physical collocation at a corporate policy level. Until recently, the lack of cageless physical collocation did not matter because, even in California, fewer than 10% of all central offices received any physical collocation requests prior to passage of the 1996 Act. However, now that CLECs like Covad, formed after the passage of the 1996 Act, are seeking widespread physical collocation, the Commission should address this matter and require ILECs to reform the mandatory nature of cage-based physical collocation. In particular, this issue has a strong impact in COs that serve residential neighborhoods, which are a significant portion of Covad's entry strategy.

20. Cageless physical collocation also will advance other policy objectives of the Commission. Since passage of the Act, ILECs have faced unprecedented demands for physical collocation. This demand will only increase, especially given a ruling by a

federal court that essentially ruled that CLECs desiring to "combine" unbundled network elements (such as loops, switching and transport) must do their own "combining"—presumably through physical collocation space in a central office. As long as those conditions exist, ILECs must be prepared to receive—and provide—hundreds upon hundreds of requests for physical collocation that will swamp their current staff. As described above, the process of segregated room and cage construction is time-consuming not only for CLECs but also present a drain on ILEC resources.

21. Instead of arguing the technical feasibility of cageless, the only substantive justification ILECs have presented to Covad in refusing to provide cageless physical collocation are security concerns. I agree with the Commission's tentative conclusion in this proceeding that security issues surrounding cageless can be resolved by carriers.

22. Covad is currently implementing cageless physical collocation in several central offices in Seattle. In those offices, Covad's equipment is not being placed in a segregated collocation room, and Covad's employees have access to the central office and SPOT bays. Covad applies for, and Covad employees obtain, valid identification and access cards for Covad employees that would have access to its collocated equipment. I believe that U S WEST may perform a background check, at its own expense, on these Covad employees. Covad employees enter the U S WEST office using a swipe- or key-card entry system, and those employees must leave the office from the same door they entered. These are reasonable security requirements that Covad would accept from any ILEC. U S WEST believes its security concerns can be addressed in this simple fashion.

23. ILEC insistence that collocation cages are the *only* possible solution is unreasonable. First, alternative, less-expensive collocation arrangements other than cages

can adequately address central office security concerns. ILECs can pay for security escorts that will ensure that Covad employees work only on Covad equipment. ILEC equipment is often alarmed anyway, to prevent or deter unauthorized work on that equipment. Key-card entry systems, such as the Covad/U S WEST cageless arrangement, can be utilized. A number of other potential solutions are possible.

24. In many cases, the construction of a cage does not make the ILEC central office any more secure than it would be without the cage. In some offices, CLEC employees must (or can) walk through the central office—past ILEC equipment—to get to a segregated collocation room. In these cases, the cost of the cage is preposterous and does not protect ILEC equipment at all, and ILECs would still be expected to resort to a security escort system if they were so concerned about security.

25. Covad's proposal would resolve security concerns on a CO-by-CO and nondiscriminatory basis. The party desiring security would be required to pay for that additional security measures. As Covad describes in its Comments in this proceeding, it is important that CLECs not be placed under more restrictive security or access restrictions than ILEC employees or contractors. ILECs manage the entry and exit of dozens of telecom equipment and other contractors in their central offices, and they already maintain security arrangements and qualifications for those employees or contractors. In Virginia, Bell Atlantic manages access to their central offices of no fewer than fifty-two vendors or contractors. These vendors are not certified by the Virginia State Corporation Commission, and Covad has learned in discovery that Bell Atlantic does not engage in background checks of employees of those vendors and contractors. In New York, Bell Atlantic maintains a portfolio of 57 independent contractors or vendors

that have similar access. There is no reason that CLECs should be singled out for special, more restrictive access policies.

26. In addition, no security arrangement imposed by the ILEC should unduly restrict or hinder the ability of a requesting telecommunications carrier to maintain a high level of customer service, including, but not limited to, security arrangements that would unduly restrict, hinder or effective prohibit the ability of a CLEC from repairing collocated equipment at any time to correct a service outage or impairment as soon as possible. Only common sense dictates that if a CLEC's customer is out of service or experiencing a problem, the CLEC should be able to solve that problem immediately, on a 24 hour a day, 7 day a week basis.

27. When proper incentives are in place for security arrangements—that is, when the party desiring security pays for those additional security measures, when access restrictions are nondiscriminatory and do not impair customer service —I believe that security will disappear as an issue. In the competitive sphere, industry practice demonstrates that they can be resolved. It is reasonable for this Commission to require ILECs to conduct business in the same manner as competition-driven CLECs. The simple fact is that non-interference with each other's equipment is the industry norm, that each carrier's personnel who work in COs typically have had significant industry experience and, like myself, have often been long-time employees of the ILEC or managers and supervisors of teams of personnel who work in COs. Given the industry norms (and given that the consequences for interfering with the operation of another carrier's equipment are severe), I have no hesitation in stating that the previously taken corporate position of ILECs against cageless physical collocation is based on concerns

other than genuine operational, technical or security concerns. Instead, I believe that the position ILECs have taken against cageless physical collocation is based upon outdated cage-based procedures initially designed years ago to permit access by fiber-based CLECs into a limited number of ILEC central offices. With the passage of the 1996 Telecommunications Act, CLECs have a different set of collocation requirements, with a focus on time-to-market that involves less equipment and ready access to unbundled local loops and other elements.

28. Adoption of Covad's cageless proposal also will help alleviate the intolerable situation in which ILECs claim that "no space" exists in literally dozens of central offices for collocation. Covad's cageless physical collocation proposal only requires that the ILEC find room in the office for perhaps two bays of equipment, as opposed to finding room for an extensive, segregated collocation cage room that may be as large as 2100 square feet. As I said earlier, the equipment Covad seeks to collocate is relatively small and does not have excessive power requirements. It is my years of experience with collocation and familiarity with ILEC central offices, these "no space" problems stem entirely from ILEC requirements for large segregated collocation rooms and cages and *not* from the fact that there is "no space" for the equipment Covad seeks to collocate.

29. In residential offices where little or no collocation has occurred yet, cageless would present a tremendous cost and time saving to both Covad and the relevant ILEC. Cageless collocation eliminates the need of cage construction and can reduce the time to entry into a CO for a CLEC by several weeks. Covad's contract with U S WEST in Washington states that U S WEST will provide Covad with cageless collocation space in

45 days—far sooner than the 120 days that many ILECs commit to for cage-based collocation.

30. Cageless is also far less costly for both parties in terms of project management, use of engineering time and other resources. It avoids the need to EFI (engineer, furnish and install) duplicate infrastructures (HVAC, power, cabling). Cageless collocation is more space-efficient, thus saving space reclamation efforts (which ILEC and ILEC ratepayers would otherwise be required to pay for).

31. Therefore, as a policy matter, cageless literally allows more room for competition. In my experience, typical CO space is plentiful for cageless physical collocation. The space efficiency of cageless collocation relative to cage-based physical collocation can be best understood by way of an analogy. Finding space for a cageless bay of equipment in a central office is like finding space in a packed suitcase for a pair of socks. Finding space for a segregated collocation room in that same central office is like finding space in a packed suitcase for a starched tuxedo. As an individual who has worked for both an ILEC and a CLEC, it is very clear to me that cageless physical collocation is not only a technically feasible and practical way to implement physical collocation, it is by far the most-efficient and cost-effective form of physical collocation for all parties.

Virtual Collocation is not a Viable Option

32. In my opinion, virtual collocation does not give CLECs like Covad the ability to control costs and quality of service sufficiently. Under virtual collocation, the equipment of the CLEC's choosing will be installed in the central office, but the CLEC will not be permitted to have its employees operate, maintain and repair that equipment. Instead, the CLEC must train and pay for ILEC employees to undertake those tasks. In doing so, the

CLEC may have to compromise its trade secrets to the ILEC, a significant direct competitor. The CLEC has no option to "fire" or even reprimand the ILEC if the ILEC's employees do not perform their job sufficiently. The ILEC has every incentive—particularly when faced with competing demands on its personnel—to favor its own retail customers over CLECs such as Covad. For a start-up company like Covad, who believes that its competitive advantage derives in part from superior service to the incumbent LEC, direct control over its equipment and service-affecting matters such as provisioning, maintenance and repair activities is absolutely necessary.

33. Even if the ILEC does not affirmatively discriminate against a CLEC in a virtual arrangement, the ILEC's control over the CLEC equipment still place an effective cap on the quality of the CLEC service. Simply put, CLECs will not be able to offer better service than the ILEC when forced to use virtual collocation—at best, CLECs would have service as good as the ILEC. In reality, because the CLEC would have to coordinate service on the equipment through the ILEC, it would inevitably face communications and logistical problems that (1) it would not encounter if it controlled its own service and (2) the ILEC will not encounter in providing service to its own retail customers. The end result is to hinder CLEC efforts to differentiate their service from the ILEC and will deprive consumers of the choice of different types of service.

34. In addition, tariffs for virtual collocation services often contain unreasonable terms that make these arrangements costly and unwieldy. For example, Pacific Bell's FCC virtual collocation tariff requires that CLECs pay Pacific Bell to train Pacific Bell's own employees. The number of employees who must be trained and how much it will cost to train them is left solely to Pacific Bell's discretion. The number of ILEC

employees to be trained is potentially enormous if Covad is required to accept virtual collocation in dozens of central offices. The FCC tariff also requires the CLEC to disclose all confidential information about the type, quantity and inner workings of the equipment the CLEC plans to deploy. However, once a CLEC has paid to educate Pacific Bell's employees about the CLEC's highly sensitive business plans, nothing in the tariff prevents Pacific Bell from utilizing that information to its own advantage, or even from deploying those trained employees elsewhere, including to Pacific's own DSL operations.

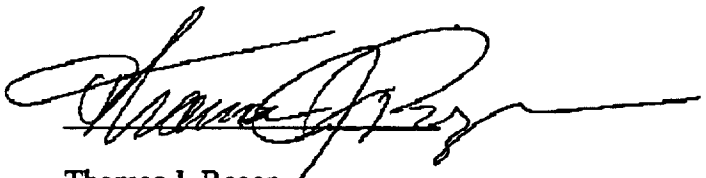
35. In my experience, most CLECs regard virtual collocation as a less-preferable and oftentimes commercially nonviable solution. During my entire time of working in Pacific Bell's Industry Marketing Department (the department responsible for collocation), not a single CLEC ever ordered, much less implemented, virtual collocation in even a single CO. In fact, while I worked for Pacific Bell, the company was opposed to virtual collocation, and refused to provide virtual collocation unless it could not provide physical collocation. Interestingly, Pacific Bell has since completely changed its position.

36. Because virtual collocation requires the CLEC to cede control of its equipment and quality of service to the ILEC, virtual collocation sacrifices the CLEC's legitimate service and other interests seemingly only to alleviate ILEC discomfort with cageless physical collocation. With cageless physical collocation, each party manages its own equipment and is individually responsible for protecting its own equipment and intellectual property. Virtual collocation is a one-sided coercion of CLECs to accommodate ILEC ostensible security concerns about permitting CLEC employees into

its COs for the purpose of going about their own business—maintaining, operating and ugrading the CLEC's own equipment.

Controlled Environment Vaults ("CEVs")

37. Another possible alternative method of rapid collocation access would be to permitting CLECs to use CEVs in COs where there are genuine space limitations, even for cageless physical collocation. A CEV refers to a self-contained remote, portable space (often a trailer) that is specially configured to be equivalent to CO-grade space. CLECs could then station CEVs immediately outside the ILEC's CO (or, in some instances, on the roof of the building) and connect to the ILEC's facility and power supply. Using this approach, Covad could be up and running in less than 30 days. The CLEC would pay for its CEVs and need not have any physical access to the CO, alleviating any security concerns. And the lines connecting the CLEC equipment in the CEV to the CO would be very short, so DSL service speeds would not be degraded. I know that Pacific Bell *already* uses similar CEVs at a number of its COs for its own purposes. In addition, ILECs cannot seriously contend that it is more important (or better for consumers) to preserve parking spaces at COs than to allow more CLECs to compete. CLEC requests for CEV collocation should be handled in the same manner as the law requires—with an examination of the technical feasibility of this arrangement and provision on a first-come, first-served basis.



Thomas J. Regan
Dated: September 25, 1998

Attachment 2

Affidavit of John Fogarty
Covad Communications Company

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Deployment of Wireline Services Offering	)	CC Docket No. 98-147
Advanced Telecommunications Capability	)	
	)	

AFFIDAVIT OF JOHN FOGARTY
ON BEHALF OF COVAD COMMUNICATIONS COMPANY

1. My name is John Fogarty, Collocation Program Manager in the New York region for Covad Communications Company. My business address is 2330 Central Expressway, Santa Clara, CA 95050. My telephone number is (516) 679-0894.

2. Prior to coming to Covad, I was employed by Bell Atlantic – New York ("BA-NY" or "BA") for 25 years. While at BA-NY, I performed a myriad of different jobs. However, most recently, before moving on to work for Covad, I was contracted by BA-NY as project manager/technical specialist for collocation cages. My last position at BA-NY was Senior Engineering Specialist wherein I was responsible for the design and implementation of BA-NY's collocation program.

3. Since June, 1998, I have worked for Covad in the position of Collocation Program Manager for the New York region. I am responsible for all of Covad's collocation arrangements in New York and report to the Director of Collocation. Specifically, I manage the cage installation and turnovers by BA-NY. I also manage the Covad equipment installation and am also responsible for the initial circuit turn-up.

SUMMARY OF TESTIMONY

4. Covad's collocation experience in New York reveals both BA's culture of inefficiency and its sheer inability to handle the task. More specifically, I think that BA is not organizationally or structurally geared toward efficient collocation provisioning. There are simply too many moving parts that aren't effectively coordinated and managed that need to come together to get to the collocation end product. I also believe that BA has not allocated adequate resources to handle the volumes of collocation requests it is receiving now. And I don't believe that BA is able to meet reasonably foreseeable demand for collocations.

5. I am also concerned about the lack of consistency in collocation practice and procedure in the BA region. The BA collocation process varies by jurisdiction. This makes it all the more difficult for new entrants like Covad to do business in the BA states.

6. If BA gets into the long distance market too early, before its collocation processes and procedures are stream-lined and improved to address competitive needs and demands, not only will the situation get worse as collocation demand increases, but BA will have no incentive to fix the problem.

LACK OF CONSISTENCY IN PRACTICE

7. I am concerned about the fact that BA does not have a regional collocation process. To some degree, the lack of consistency relates to the Bell Atlantic/Nynex merger. Basically, two companies had varying practices with regard to collocation and there has been some effort – though far from completion – to merge these different

practices. However, to a large degree, there still remains two different practices – one that governs the north and the other that governs the south.

8. For example, there are different rates, charges, and intervals for virtual and physical collocation. For the North, the intervals for physical and virtual are 76 business days and 105 business days respectively. For the South, the intervals for physical and virtual are 180 days and 60 days respectively.

9. The BA CLEC Handbook holds other examples of inconsistent policy and procedure. For example, there are different requirements for cable installation regarding cable lengths, cable location and cable splicing. There are different methods for recovery of collocation construction costs. There are different provisions for power to the collocation node. There are different provisions and requirements for the Point of Termination ("POT") Bay.

10. Some collocation options are not available throughout the BA region. For example, BA offers shared cages in New York and Massachusetts only. There are two options for installation and engineering of CLEC-provided equipment except in New England states where equipment installation is done by Bell Atlantic employees. There are even different installation charges for the North and the South if Bell Atlantic does installation. There are different equipment inventory processes depending on whether a CLEC is virtually collocating in the North or the South.

11. I do not believe that there is any movement afoot to make these practices uniform for the entire region. Differing practices are particularly problematic for a company like Covad because the nature of our business requires collocations in every state to accommodate the many telecommuters that need service that crosses state lines.

BELL ATLANTIC'S COLLOCATION PROCESS

12. I would like to explain Bell Atlantic's collocation processes and procedures. Collocation applications for the entire 14-state BA region are received primarily by one individual – the Collocation Project Manager – located at BA's Pearl Street facility in New York City. This individual's responsibility is to review applications for completeness, "eyeball" requests for known space constrained central offices, and then to hand off collocation applications to staff in the regions.

13. BA's collocation process is doomed from the start, at the moment when applications are received at Pearl Street, because of a logjam caused by a mailroom practice. The Pearl Street mailroom will not immediately deliver collocation applications to the Collocation Project Manager. Instead, the mailroom makes a call to the Collocation Manager who has to send someone to the lobby to pick up the applications. For this reason, applications may sit in the mailroom or common delivery site for days before the Collocation Manager or his staff picks them up. More troubling is that it may be a week or more until the regional collocation staff, who actually do collocation provisioning, receive applications. Given that the most time-consuming part of collocation provisioning relates to engineering, cage construction, and space preparation, BA's mailroom process delays timely provisioning even before the real work begins.

14. As I mentioned earlier, there is only one person who has the responsibility for taking the initial shot at reviewing all of the collocation applications in BA's 14-state region. Clearly, BA is failing to adequately staff even this front-end process for potential collocators.

15. Applications are logged into a system that tracks collocation requests. In fact, when I was at BA, I instituted this log-in procedure for applications which, before that, had not been tracked on an individual basis. The Collocation Project Manager reviews the applications for completeness. He may also reject an application if there is a known lack of space in a particular central office. This space "analysis" is usually done based on the Manager's memory or through a quick phone call to someone who has knowledge of a particular central office. As far as I know, there isn't a formal list off of which he works. The Manager then sends the applications out for processing by the regions.

16. The next step in the process highlights another point of failure in the BA collocation process. The actual collocation work – engineering and construction -- involves a multitude of groups within BA that work independently toward a caged collocation end product. There is little to no coordination of all of the effort that is required to do collocation. Also, there is absolutely no way to obtain, at any given point in time, the status of a particular collocation request, unless a date is missed. When this happens, there is a scramble to identify the hold-up.

17. For New York, applications are sent to the Engineer Manager for Common Systems located at BA's facilities at West 36th Street, New York City. The Engineer Manager's staff (consisting of approximately 7 to 8 people) takes a more in-depth look at the requests which may include a field visit, if necessary. However, the Common Systems group does not have knowledge of all of the planned use for each central office in New York. Therefore, the Engineer Manager must engage in considerable coordination with other departments who are using or want to use

central office space. There is no organized method for understanding the internal space demands so this part of the process can take anywhere from weeks to months to conclude.

18. Once this coordination has concluded, BA confirms with the requesting collocator that it wants to go ahead with collocation. BA then processes an estimate of cost, gets necessary funding from the construction budget to finance the collocation arrangement, and obtains internal authorization to make the necessary expenditures to build the collocation arrangement. Obtaining a cost estimate approval can take up to five weeks.

19. BA's Common Systems group then requests the Real Estate Organization to issue work orders to purchase the cage, prepare floor space, and install air-conditioning, among other things. Simultaneously, an order is issued in the Vendor Engineering Center and Field Engineering to install the BA network that will support collocation, i.e. installing the POT bay, service access cables, and DC power. The Vendor Engineering Center purchases the necessary equipment and provides detailed engineering services. The field engineers establish a final implementation schedule. This could take another five weeks.

20. At last, BA informs the CLEC that a cage is ready. The interval in BA-North is 76 business days and the process I've talked about may bring the timeline well beyond the interval. This is why BA usually tries to talk the CLEC into delaying or staggering the cage deliveries because it simply does not have the wherewithal to meet the interval.

21. Further, it isn't surprising that BA refuses to allow CLEC to chart the progress of their collocation arrangement. I don't think even BA knows the status of collocations because there is no overall management of its collocation process.

22. Also, BA-NY treats the turnover to Covad as a type of "first inspection" of the collocation cage to determine its worthiness to support telecommunications service. Not one of the 28 cages that Covad has received to date met our requirements. I'll explain these problems later.

COVAD'S COLLOCATION EXPERIENCE

23. To date, Covad's collocation experience in New York has been extremely frustrating. Today Covad has 28 cages in New York. None of these cages was ready to support Covad's service on the turn-over date. Not one of these 28 cages has been brought into compliance with Covad's requirements. It has been extremely time-consuming to identify and correct these many deficiencies on a cage-by-cage basis, the result being a significant delay in actual turn-over of these cages. BA's field engineers were not aware of Covad's requirements nor did they know BA's own collocation requirements. Attached to my affidavit as Attachment A is a list of the deficiencies found in some of our cages. I'll note that Covad has made a total of over 73 applications for physical collocation, including the 28 cages we now have.

24. As I mentioned, not one of our 28 cages was delivered per Covad's requirements. When cage inspection occurs, Covad uses a form called "Covad Collocation Cage Acceptance Checklist" to determine whether a collocation has been properly constructed. The checklist identifies requirements regarding the cage, common area, power (AC, DC), lighting, POT bay, cabling, and other issues. In the case of Covad's

28 cages, the following list identifies some but not all of the problems which were encountered:

- Cage: cage door had to be moved to gain access to the cage, wrong-sized cage, upgrade of cage needed, wrong ironwork, wrong placement of cage, top of cage caved in
- Common area: no stumble lighting, no lock on common area door, no common area key, building lighting switch not available, no access card
- Air conditioning not installed
- Cabling: no cabling in POT bay, wrong cabling in cage, cable hole flange placed upside down, cables not supported, cables not butted, cable not long enough to reach fuse on Covad panel
- Power: no outlets or insufficient number of outlets, breakers and outlets not labeled/stenciled, wrong size essential feeds
- POT Bay: installed in reverse, insufficient or incorrect racking
- Grounding: ground bar out of limits, ground bar not bonded to cage
- Lighting: no emergency lighting, no access to light switch in common area and access hallway
- Other issues: new floor required due to asbestos removal, no environmental alarms, garbage in halls, excessive dust and debris left in space due to construction, water pipes by cage, window by radiator not sealed

25. Again, BA has yet to remedy many of the problems with our collocation cages. As far as we're concerned, BA has yet to turnover the vast majority of Covad's 28 cages for which we placed orders on May 1, 1998.

26. Up until the present, there has not been any process in place to ensure that a cage complies with the specific requirements of a CLEC. There has been no quality inspection. We've just recently been informed that BA will do a quality inspection on the cages, no doubt in response to Covad's complaints on its 28 cages.

When I was at BA, it was my job to troubleshoot on collocation problems on space issues, equipment deployment, or anything else that came up. I did some quality work and came up with space workarounds where supposedly no space existed. Basically, I was the last resort for problem collocation applications. It's my understanding that my position wasn't replaced. I don't understand why there aren't any resources dedicated to this important function. The quality of Covad's cages received to date certainly demonstrates the need for additional resources.

AVAILABILITY OF SPACE

27. I have concerns about space availability in BA central offices. Our first couple rounds of collocation applications revealed that there are space limitations in New York that affect Covad's ability to get into key central offices that serve many potential customers. There are 5 no space offices of the 63 initial applications. I have yet to know whether there will be space limitations in the remaining applications we have made. BA hasn't yet responded to these.

28. My knowledge of the central offices in New York makes me very concerned about BA-NY's ability to accommodate the remainder of Covad's applications. I seriously question whether BA is capable of assuring that it is efficiently using central office space. And I do not believe that there is a system in place to track current use of space and to fairly allocate available space between BA and CLEC use.

I believe that the space problem is caused in large part because there is fierce competition within BA for space in the central offices. Various groups within BA fight to retain and obtain space for their future use. I think it's fair to say that CLEC space is relegated to whatever space hasn't been earmarked for internal use. Prioritization is really just between CLECs and CLECs don't have a voice in this fight for space. BA's policy does not permit CLEC walk-throughs in central offices that supposedly do not have space for collocation. Inspections might be allowed on an individual basis. In New York, Covad hasn't been allowed to inspect a premise that is no space. The end result is that CLECs are being shut out of central offices.

OTHER ISSUES

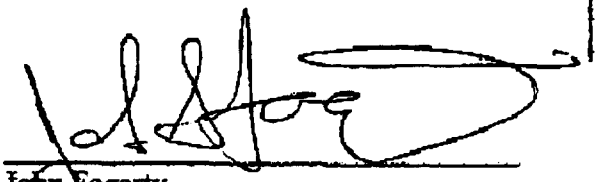
29. We have also received very high costs for conditioning space in certain central offices. We are still waiting for cost details from BA.

30. Covad has not been receiving timely price quotes. For our second and third batches of applications, BA has been delinquent in getting Covad price quotes. This affects 42 of our applications.

31. Furthermore, for applications made in early July, there are turnover dates that go well beyond the interval. BA can do no better than provision some of these requests by mid February of next year, over seven months after we applied for these spaces. In most cases, we don't even have turnover dates.

CONCLUSION

32. In conclusion, BA needs to comprehensively revamp its collocation processes and procedures and adequately resource and train the staff that handle and do collocations.



John Fogarty
Collocation Program Manager
Covad Communications Company
September 24, 1998

COVAD'S NY CAGE PROBLEMS
(NOT ALL INCLUSIVE)
ATTACHMENT A

Cage A:
One duplex outlet not provided
Fuse locations not stenciled
Cable holes installed flange up (upside down)
Door key not provided
No Covad sign
Cage box not stenciled
Common door wall to be moved
2 110v 20a essential feeds not provided
Cable not long enough to reach fuse Covad panel
Fuse numbers not stenciled
POT bay cable rack to be redesigned
HICAP bay cable counts not stenciled
ABAM not grounded in bay
Too much slack loop cabling
Cabling not streaked
Fuse numbers not stenciled
Window by radiator not sealed
Wide open cable holes over common area
Add power rack to cable hole
Add switchboard rack to cable hole

Cage B:
Building lighting switch not available
2 110v 20a essential feeds not provided
One duplex outlet not provided
20A breakers not tagged Covad
CILLI not stenciled
No Covad sign
Fuses not stenciled
Cable counts and numbers not stenciled
DS3 panel moved up
Dusty – construction
Garbage in hall
Remove temporary AC construction lights
AC controls and alarms
Rework ground bar

Cage C:
Cage door lock needs new cylinder
No Covad sign

No stenciling on essential feeds
Run power leads

Cage D:
Power bay provided but no cabling into cage
Cage upgrade needed
No cage lock or key
One duplex outlets not provided
Outlet needs to be moved
Ground cable improperly crimped
POT bay needs to be reground in direction of flow
No emergency lighting

Cage E:
One duplex outlet not provided
Cable holes installed flange up (upside down)
CILLI not stenciled in POT bay
No air-conditioning
Cage door had to be moved because POT bay in front of cage door
HICAPs put in backwards

Cage F:
POT bay moved because blocking cage door
One duplex outlet not provided
20A breakers not tagged Covad
Fuse locations not stenciled on outlet
Cable holes placed flange up (upside down)
No Covad sign
Cabling into SVGALS in wrong opening
New racking needed for POT bay line-up and Covad
Close cable holes over cage

Cage G:
Duplex outlets not stenciled with breaker number
One duplex outlet not provided
CILLI not stenciled
Cable holes placed flange up (upside down)
Cage door key not provided
Additional fuses needed
No ABAM shield ground
Cable number not stenciled in SVGALS bay

Cage H:
2110v 20a essential feeds not provided
One duplex outlet not provided
PDSC to be moved to outside of cage

SVGALS rack to be dropped
Add waterfall rack to cable holes switchboard
Power and switchboard on combined rack

Cage I:
One duplex outlet not provided
20A breakers not tagged Covad
Cage top caved in
Cable holes placed flange up (upside down)
No Covad sign
Reroute and add VG cable rack

Cage J:
No emergency lighting
One duplex outlet not provided
PDSC inside cage and not stenciled
CILLI not stenciled
No Covad sign
POT bay racking needs to be redone
Cable counts and numbers not stenciled
No POT bay shield ground

Cage K:
No key to common area entrance
No emergency lighting
One duplex outlet not provided
20A breakers not tagged Covad
2 110v 20a essential feeds not provided
Cable holes not installed flange up (upside down)
No Covad sign
HICAP bay cable counts not stenciled
SVGALS bay cable numbers and counts not stenciled
Remove radiator
Need protection on water pipes
Area needs to be cleaned up
Ironwork wrong

Cage L:
AC power in transition
One duplex outlet not provided
Lighting pickup to be moved
Location of cable holes wrong
No Covad sign
No single point of ground
No stenciling on cable numbers and counts

Cage M:
One duplex outlet not provided
PDSC not in common area and AC shut off not mounted on outside of cage
Cable not long enough to reach fuse Covad panel
Ground bar not within 100 feet of ground
Cable hole to be sealed

Cage N:
No lock on common area door
2 110v 20a essential feeds not provided
One duplex outlet not provided
Cable not long enough to reach fuse panel
No Covad sign
No cable holes cut
PDSC breakers not tagged Covad
No separate ABAM ground
No emergency access

Cage O:
One duplex outlet not provided
Additional racking for POT bay
No fiber rack
No key in common area lock
No cable stenciling
Cables not butted or supported
Ground bar not within 100 feet of Ground

Cage P:
No cylinder in door lock
No Covad sign
Cut cable rack back out
2 BDFB fuses on a common BUS panel
Cable numbers and counts not stenciled
No single point of ground
No keys to cage

Cage Q:
CILLI not stenciled
No Covad sign
Relocate DS3 to top of Bay
DS1 needs to be wired
Racking incorrect
No air-conditioning
New floor asbestos removal
Relocate ground tap on SVGALS
Close cable hold over cage

Cage R:
No lock on entrance door
One duplex outlet not provided
Add racking to cable holes
Water fall cabling inside cage
Reground POT bay
Asbestos removal-floor replacement

Cage S:
One duplex outlet not provided
20A breakers not tagged Covad
Fuse locations not stenciled on shutoff
No Covad sign
PDSC AC shut off not mounted on outside of cage
Cable needs to be rebutted
Water pipes by cage
Move cage walls
Cable holes need to be cut

Cage T:
Building light switch not available
Emergency lighting
One duplex outlet not provided
20A breakers not tagged Covad
Fuse locations not stenciled
Cable holes not installed flange up (upside down)
HICAP bay cable counts not stenciled

Cage U:
2 110v 20a essential feeds not provided
One duplex outlet not provided
20A breakers not tagged Covad
Fuse locations not stenciled
No Covad sign
Cable holes not cut
Add racking
Cable counts not stenciled
Windows not sealed
AC not on
AC controls and alarms
No asbestos in floor

Cage V:
One duplex outlet not provided
20A breakers not tagged Covad

Cable holes sag
Cable not long enough to reach fuse Covad panel
Cable counts not stenciled
Cable holes not closed properly

Cage W:
Remove AC shut off
One duplex outlet not provided
1 box to pick up lighting feed not provided
CILLI not stenciled
No Covad sign
Cable not long enough to reach fuse Covad panel
Cable counts not stenciled
Shield needs reground

Cage X:
One duplex outlet not provided
No access to light switch in common area
Move rack to CA hole
HICAP in backwards
Remove DS3 cable
Move ground wire in SVGALS bay
Remove bars in SVGALS bay
Remove choke on bond